

What is claimed is:

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1. A portable mobile unit capable of alerting on incoming
of a signal by a ringing sound, comprising:

a ringing sound generator having a plurality of sound

5 sources therewith; and

a controller for controlling operations of said portable
mobile unit, wherein

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said controller controls said ringing sound generator so
as to generate the ringing sound using at least one of said sound
10 sources upon basis of a predetermined condition when the signal
comes in.

2. A portable mobile unit as defined in claim 1, wherein
said controller selects one pattern from a plurality of patterns
of the ringing sounds, each of which is composed of a combination
15 of said sound sources based on the predetermined conditions,
and controls said ringing sound generator to generate the ringing
sound, and said ringing sound generator comprises: a memory for
storing a plurality of sound data which are generated with
different generation methods, respectively; a plurality of
20 reproducer for reproducing said a plurality of sound data stored
in accordance with the respective generation methods; and a
reproduction timing memory for storing reproduction timings for
selection of the sound data to be reproduced among said plurality
of sound data and for formation of said patterns for the respective
25 sound data selected, wherein said controller controls said

and
reproducer, so as to reproduce said sound data selected in accordance with said reproduction timings, respectively.

3. A portable mobile unit as defined in claim 2, wherein said plurality of sound data contains sound data of a wave-form 5 coding method, in which quantization width is set up depending upon a level of amplitude or power, and sound data of an analytic composition coding method, in which the signal is modeled so as to be coded.

4. A portable mobile unit, comprising:

10 a memory for storing a plurality of sound data generated by different generating methods respectively;

a plurality of reproducer for reproducing said plurality of sound data stored in accordance with the respective generating methods;

15 a reproduction timing memory for storing reproduction timings to form a reproduction pattern for each of the sound data forming said reproduction pattern among said plurality of sound data, so as to generate a ringing sound for alerting an incoming call with the reproduction pattern made of combination 20 of said sound data of different generating methods;

a controller for controlling the respective reproductions of the sound data selected based on said reproduction timings; and

25 a speaker for outputting an output of said reproducer in a form of sound, wherein

said controller controls said reproducer, so that at least one of said plurality of sound data is outputted from said speaker based on the reproduction timings stored in said reproduction timing memory.

5 5. A portable mobile unit as defined in claim 4, wherein said plurality of sound data contains sound data of a wave-form coding method, in which quantization width is set up depending upon a level of amplitude or power, and sound data of a analytic composition coding method, in which the signal is modeled so
10 as to be coded.

6. A portable mobile unit as defined in claim 4, further comprising:

a receiver for receiving a radio-wave signal including a call signal;

15 a telephone number detector for detecting a telephone number of a caller from said radio-wave signal received; and
a pattern memory for storing said reproduction pattern,
wherein

20 said reproduction pattern is set up for each of the telephone numbers which is registered in advance, and said controller controls said reproducer so that said sound data is reproduced in accordance with the reproduction pattern corresponding to said registered telephone number when said detected telephone number is coincident with said registered
25 telephone number.

7. A portable mobile unit as defined in claim 6, wherein
said pattern memory registers a portion of the telephone number,
relating to an address of the caller, in advance, and said
controller controls said reproducer so that said sound data is
reproduced by the reproduction pattern corresponding to said
registered portion of the telephone number when said detected
portion of the telephone number is coincident with said
registered portion of the telephone number.

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8. A portable mobile unit capable of alerting on incoming
10 of a signal by a ringing sound, comprising:

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a ringing sound generator for generating the ringing sound
in accordance with a plurality of patterns made of combination
of sound sources; and

15 a controller for controlling operations of said portable
mobile unit, wherein

said controller controls said ringing sound generator,
so as to generate the ringing sound when the signal comes in,
by selecting at least one pattern from said plurality of patterns,
each of which is formed with combination of said sound sources,
20 based on a predetermined condition.

9. A portable mobile unit as defined in claim 1, further
comprising a timer, wherein said predetermined condition is that
time of incoming of the signal is contained within a time zone
which is set up in advance.

25 10. A portable mobile unit as defined in claim 1, further

comprising a calendar function, wherein said predetermined condition is that a day of incoming of the signal is contained within a period which is set up in advance.

11. A portable mobile unit as defined in claim 1, further comprising a counter for counting number of times of incoming calls in absence from a specific person, wherein said predetermined condition is that said number of times of incoming calls in absence is contained within a range of number of times which is set up in advance.
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10 12. A portable mobile unit as defined in claim 1, further comprising remaining battery capacity detector for detecting remaining battery capacity of the portable mobile unit, wherein said predetermined condition is that the remaining battery capacity is contained within a range of capacity which is set 15 up in advance, when said signal comes in.

13. A portable mobile unit as defined in claim 1, further comprising a sound detector for detecting condition of sounds, wherein said predetermined condition is that an environmental sound of said portable mobile unit is contained within a condition 20 of sound which is set up in advance, when said signal comes in.

14. A portable mobile unit as defined in claim 1, further comprising sound volume level detector for detecting sound volume level, wherein said predetermined condition is that the sound volume level in an environment of said portable mobile unit is 25 contained within a range of sound volume level which is set up

in advance, when said signal comes in.

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15. A portable mobile unit as defined in claim 1, further comprising at least either one of a heat sensor and a pressure sensor, wherein said predetermined condition is to detect that
5 said portable mobile unit is held in a hand of a user, by means of at least either one of said heat sensor and said pressure sensor, when said signal comes in.

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